

FIG. 1A

Variables Maintained At A Node

No.	Variable	Description	Type	Value
1	ID	Node Identifier	Integer	1 - N
2	Direction	Identifier for the ring	Binary	UPSTREAM/DOWNSTREAM
3	LPR <sub>&lt;Direction&gt;</sub>	Last packet received from <Direction>	PACKET	
4	LPT <sub>&lt;Direction&gt;</sub>	Last packet transmitted in <Direction>	PACKET	
5	PMSN <sub>&lt;Direction&gt;</sub>	Permission to transmit in <Direction>	Binary	ENABLE/DISABLE
6	TR <sub>&lt;Direction&gt;</sub>	Transmission Round in <Direction>	Binary	ODD/EVEN
7	TBR <sub>&lt;Direction&gt;</sub>	Transit Buffer Round in <Direction>	Binary	ODD/EVEN
8	TBTH <sub>&lt;Direction&gt;</sub>	Transit Buffer Threshold in <Direction>	Integer	
9	NPQCR <sub>&lt;Direction&gt;</sub>	Number of packets queued in current TBR <sub>&lt;Direction&gt;</sub>	Integer	0 Transit Buffer Size
10	NPTCR <sub>&lt;Direction&gt;</sub>	Number of packets transmitted in current TR <sub>&lt;Direction&gt;</sub>	Integer	

FIG. 1B

150

160  
✓

Packet Fields (Excluding Payload)

No.	Variable	Description	Type	Value
1	Pkt.Src	Source Identifier	Integer	1 - N
2	Pkt.Dst	Destination Identifier	Integer	
3	Pkt.PMSN	Permission to transmit in the opposite direction	Binary	ENABLE/DISABLE
4	Pkt.Round	Transmission round of the packet	Binary	ODD/EVEN

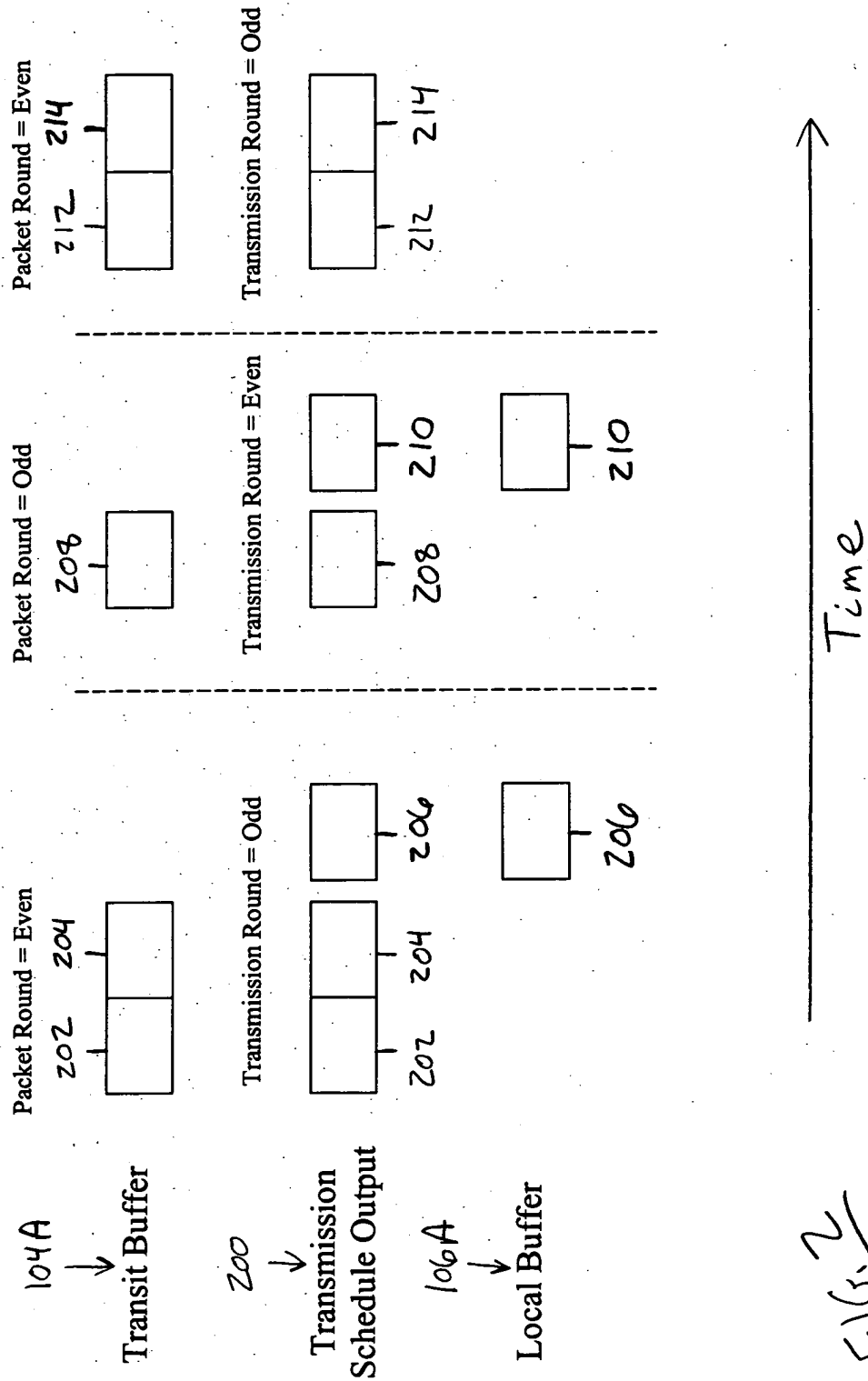
FIG. 1C

170  
✓

Changes To The Variables Maintained At The Node 100A

Time	(Pkt.Dst, Pkt.Round)	(NPQCR, TBR)	Packet that is queued in Transit Buffer 104A or 104B	(LPR.Dst, LPR.Round)
0		(0, ODD)	-	(-, -)
1	(2, ODD)	(0, ODD)	-	(2, ODD)
2	(5, ODD)	(1, ODD)	(5, ODD)	(5, ODD)
3	(7, ODD)	(2, ODD)	(7, ODD)	(7, ODD)
4	(2, EVEN)	(0, EVEN)	-	(2, EVEN)
5	(2, EVEN)	(0, EVEN)	-	(2, EVEN)
6	-	(0, EVEN)	-	(2, EVEN)
7	(5, ODD)	(1, EVEN)	(5, EVEN)	(5, ODD)
8	(7, EVEN)	(1, ODD)	(7, ODD)	(7, EVEN)

FIG. 10



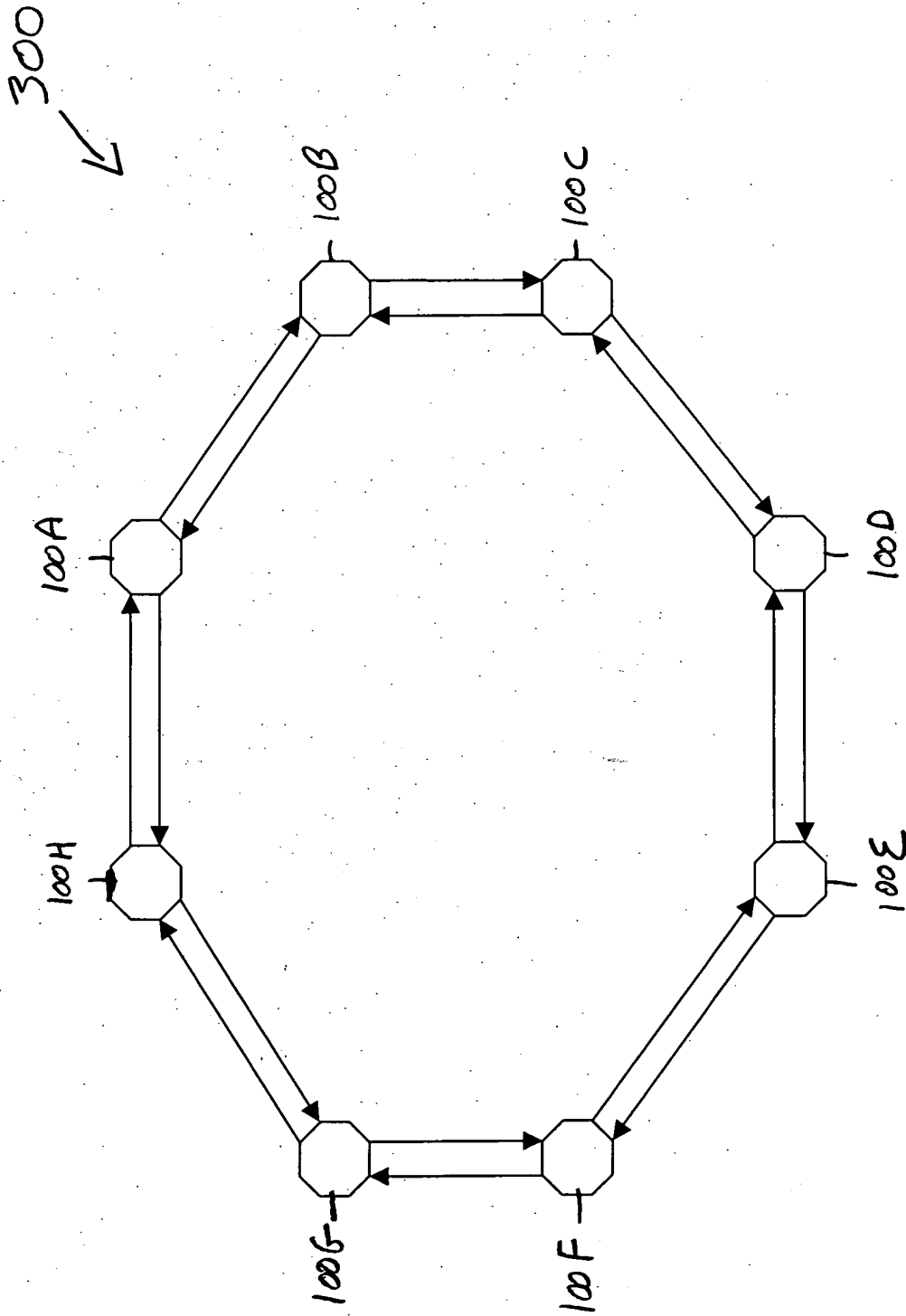


FIG. 3

400

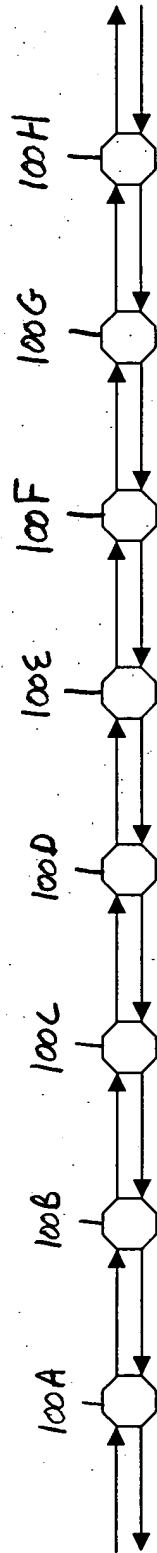


FIG. 4

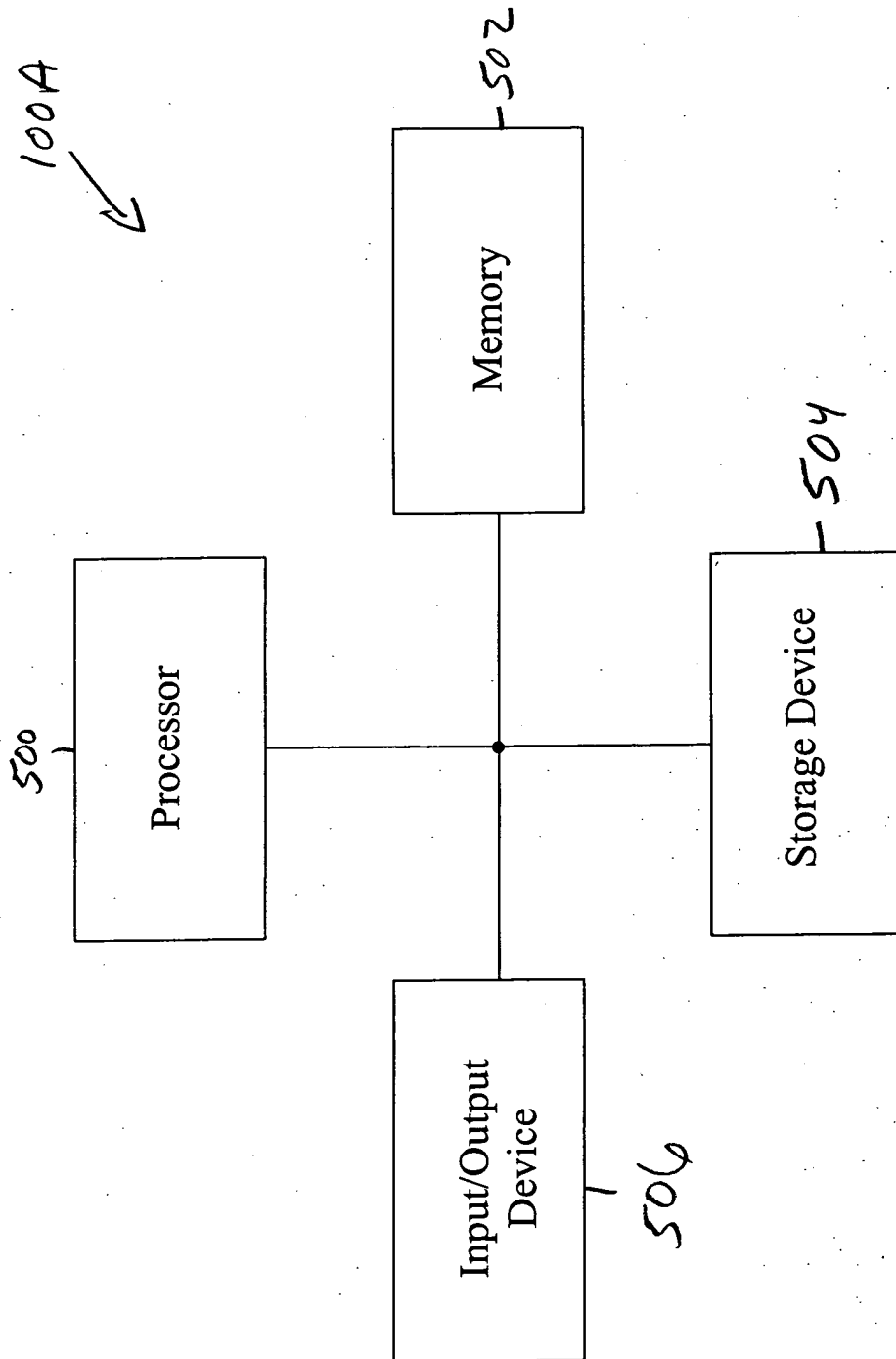


FIG. 5